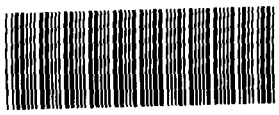
NOTICE

All drawings located at the end of the document.



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MEMORANDUM

TO Leon Klotz, EOM, Bldg 080, X8699

FROM Mark Wood, Group 2 Closures, Bldg 080, X8784 new

DATE July 27, 1994

SUBJECT OU7 CERCLA Groundwater Well Sampling and Monitoring Labor Estimates

Per our conversation, I am requesting a labor cost estimate for FY95 OU7 CERCLA groundwater monitoring and sampling activities Two tasks are involved, one is to estimate the labor involved to monitor and sample the twenty-one (21) existing CERCLA monitoring program wells, and two, to estimate the labor involved to monitor and sample six (6) new monitoring wells The new wells will be installed during the fourth quarter of 1994 and will require monitoring and sampling on a monthly basis for four months upon completion of well development activities At the completion of the four month monitoring period, the new wells can be transferred to the sitewide groundwater monitoring program The new wells will be ideal to add to the RCRA monitoring program as downgradient compliance monitoring points

Dissolved oxygen measurements will be required from the new wells from the first bailer and during purging as well as the standard field parameters The new wells will be analyzed for VOCs, SVOCs, dissolved and total metals (standard and additional), water-quality parameters (Cl, F, SO_4, Si, CO_3, HCO_3, TDS, and TSS), dissolved and total gross alpha and gross beta, dissolved and total $Pu^{239/240}$, dissolved and total Am ^{241}, dissolved and total $U^{233/234}$, dissolved and total U^{235}, dissolved and total U^{238}, dissolved and total $Sr^{89/90}$, dissolved and total Cs^{137}, tritium, nitrate/nitrite, cyanide, and sulfide This analyte list is the same as that used during the Phase I RFI/RI for OU7

We need these labor estimates no later than Close of Business on July 28, 1994 If you have any questions please contact me at the above extension, thank you

cc L Peterson-Wright

1/6

MEMORANDUM

TO Leon Klotz, EOM, Bldg 080, X8699

FROM Mark Wood, Group 2 Closures, Bldg 080, X8784 mew

DATE July 29, 1994

SUBJECT OU7 CERCLA Groundwater

Per our conversation and my conversation with Myra Vagg with S M Stollar, I am transferring the following OU7 Phase I groundwater monitoring wells over to the sitewide groundwater monitoring program

70093, 70193, 70293, 70393, 70493, 70593, 70693, 70893, 71193, 71493, 71693, 71893, 72093, 72293, 72393, and 72493

Per my memorandum of July 27, 1994, regarding cost estimates for FY95 OU7 CERCLA groundwater monitoring and sampling activities, please reduce the total of 21 existing by 16 for a total of 5 If you have any questions please contact me at the above extension, thank you

cc L Peterson-Wright

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PRESENT SANITARY LANDFILL AREA, OU 7
49 Monitoring Wells Considered for RCRA Appendix 9 Sampling

Well ID	HSU
0586	upper
0686	upper
0786	upper
0886	lower
0986	lower
1086	upper
4087	upper
4187	lower
4287	upper
5887	upper
6087	upper
6187	upper
6287	upper
6487	upper
6587	upper
6687	upper
6887	upper
7087	upper
7187	upper
7287	upper
B106089	upper
B206289	upper
B206489	upper
B206589	upper
B206689	upper
B206789	upper
B206889	upper
B206989	upper
B207089	upper
B207289	upper
76792	upper
76992	upper
77392	upper
70093	upper
70193	upper
70293	lower
70393	upper
70493	upper
70593	lower
70693	upper
70893	lower
71193	upper
71493	upper
71693	upper
71893	upper
72093	upper
72293	upper
72393	upper
72493	upper

21-16

691-1357

The S.M. Stoller Corporation
Informal Memorandum

To: **Brian Caruso, Myra Vaag**

From: **John Jankousky**

Date: **1/27/95**

Subject: **Analytical Results from New Wells**

The analytical results from well 53194 (alluvium) and well 53094 (unweathered bedrock) were compared to the Upper Tolerance Limits, 99% level of confidence, 99% of population ($UTL_{99/99}$) for the upper and lower flow systems, respectively $UTL_{99/99}$ values were taken from Background Geochemical Characterization Report, EG&G 1993 The results are presented below

For alluvial well 53194:

- **Volatile organic** concentrations were all nondetects, with the following exceptions
  - Methylene Chloride, 1 BJ, ug/L
  - Butylbenzylphthalate, 1 BJ, ug/L
- All **dissolved metal** concentrations were below $UTL_{99/99}$ values, with the following exceptions
  - Sodium (d) result = 184,000 ug/L compared to $UTL_{99/99}$ = 133,758 ug/L
  - The following metals were above detection limits and $UTL_{99/99}$ values were not available arsenic (d), beryllium (d), silicon (d)
- All **total metal** concentrations were below $UTL_{99/99}$ values, with the following exceptions
  - Lithium (t) result = 160 ug/L compared to $UTL_{99/99}$ = 147 37 ug/L
  - Sodium (t) result = 188,000 ug/L compared to $UTL_{99/99}$ = 123,327 ug/L
  - Lead (t) result = 50 5 ug/L compared to $UTL_{99/99}$ = 11 75 ug/L
  - The following metals were above detection limits and $UTL_{99/99}$ values were not available silver (t) and beryllium (t)

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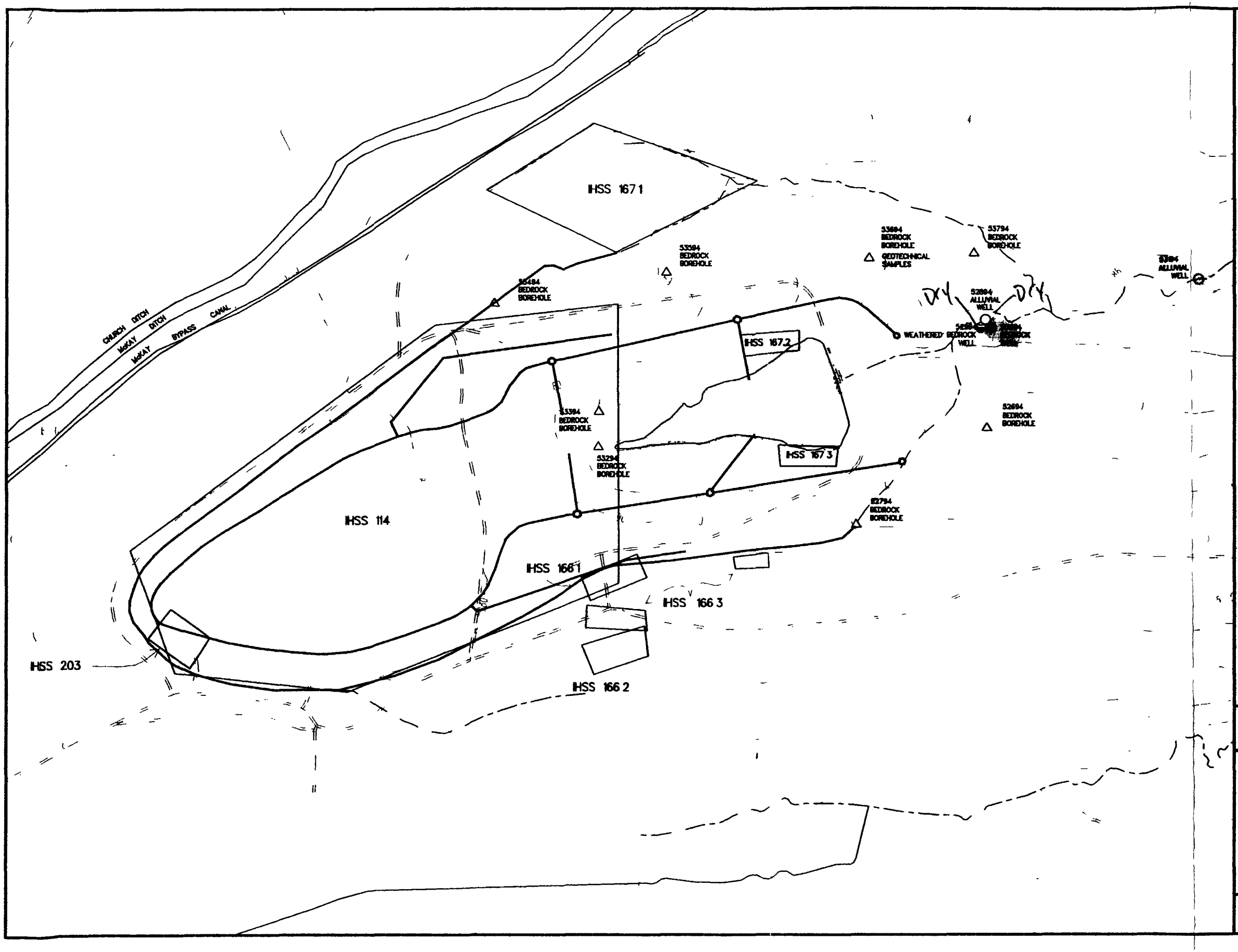
- All **water quality parameter** concentrations were below $UTL_{99/99}$ values, with the following exceptions
  - Flouride result =2,090 ug/L compared to $UTL_{99/99}$ = 1,710 ug/L
  - The following water quality parameter concentration was above detection limits and a $UTL_{99/99}$ values was not available sulfide
- All **radionuclide** concentrations were below $UTL_{99/99}$ values where $UTL_{99/99}$ values were available A $UTL_{99/99}$ value was not available for cesium-134 The result for this analyte was negative

For unweathered bedrock well 53094:

- **Volatile organic** concentrations were all nondetects
- **Dissolved metal** concentrations were not reported
- All **total metal** concentrations were below $UTL_{99/99}$ values, with the following exception
  - Nickel (t) result = 35 2 ug/L compared to $UTL_{99/99}$ = 32 89 ug/L
  - The following metal was above detection limits and a $UTL_{99/99}$ values was not available beryllium (t)
- All **water quality parameter** concentrations were below $UTL_{99/99}$ values, with the following exceptions
  - Chloride result = 887,999 ug/L compared to $UTL_{99/99}$ = 489,654 ug/L
  - Total dissolved solids result = 1,720,000 ug/L compared to $UTL_{99/99}$ = 1,582,665 ug/L
- All **radionuclide** concentrations were below $UTL_{99/99}$ values



EXPLANATION

- Alluvial Well
- Weathered Bedrock Well
- Unweathered Bedrock Well
- Borehole

- Ditch
- Intermittent Stream
- Dirt Road
- OU 7 IHSS Boundary
- OU 6 IHSS Boundary
- Landfill Structures

0 Feet 300 600

Topographic Contour Interval = 20 Feet

U.S. DEPARTMENT OF ENERGY
Rocky Flats Site, Golden, Colorado

Proposed Phase II Monitoring Well and Borehole Locations

Revised Work Plan — Operable Unit No. 7

Date August 1994 — Figure 6-3

09/01/94 PROPOSED GW.MAP

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